15KY8

High-Mu Triode— Beam Power Tube

NOVAR TYPE

For Combined Vertical-Deflection Oscillator and Amplifier Service in TV Receivers

Electrical:

Heater Characteristics and Ratings:		
Current	0.450 ± 0.030	amp
Voltage (AC or DC) at heater amperes = 0.450	15.0	volts
Warm-up time (Average)	11	sec
Peak heater-cathode voltage (Each unit):		
Heater negative with respect to cathode	200 max.	volts
Heater positive with respect to cathode	200[a] max.	volts
Direct Interelectrode Capacitances (Approx.):[b]		
Triode Unit:		
Grid to plate	0.44	pf
Input: G_T to (K_T,H)	15.0	pf
Output: P_T to (K_T,H)	7.0	pf
Beam Power Unit:		
Grid No.1 to plate	0.048	pf
Input: $G1_P$ to $(K_B+G3_B,G2_B,H)$	2.6	pf
Output: P_P to $(K_B+G3_B,G2_B,H)$	0.28	pf

Mechanical:

Operating Position . . . . Any
Type of Cathodes . . . . Coated Unipotential
Maximum Overall Length . . . . 3.110"
Maximum Seated Length . . . . 2.730"
Length, Base Seat to Bulb Top (Excluding tip). 2.210" to 2.390"
Diameter . . . . 1.062" to 1.188"
Bulb T9
Socket . . . . Cinch Mfg. Co. No.149 19 00 033, Industrial Electronics Hardware Corp. No.SO-0968-SL1, or equivalent
Base . . . . Small Button Novar 9-Pin (JEDEC No.E9-75)
Basing Designation for BOTTOM VIEW 9QT

- Pin 1 - Triode Cathode
- Pin 2 - Beam Power Grid No.1
- Pin 3 - Beam Power Cathode & Grid No.3
- Pin 4 - Heater
- Pin 5 - Heater
- Pin 6 - Beam Power Plate
- Pin 7 - Beam Power Grid No.2
- Pin 8 - Triode Plate
- Pin 9 - Triode Grid

Characteristics, Class A_1 Amplifier:

	Triode Unit	Beam Power Unit			
Plate Voltage	250	50	135	120	volts
Grid-No.2 Voltage	–	120	120	Connected to plate at socket	volts
Grid-No.1 Voltage	–3	0	–10	–10	volts
Amplification Factor	64	–	–	7	
Plate Resistance (Approx.)	40000	–	18000	–	ohms
Transconductance	1600	–	8400	–	μmhos
Plate Current	1.4	170[c]	39	–	ma
Grid-No.2 Current	–	20[c]	3	–	ma
Grid-No.1 Voltage (Approx.) for plate ma.= 1	–	–	–24	–	volts

VERTICAL-DEFLECTION OSCILLATOR

Triode Unit

Maximum Ratings, *Absolute-Maximum Values:*

For operation in a 525-line, 30-frame system[d]

DC Plate Voltage	330 max.	volts
Peak Negative-Pulse Grid Voltage	400 max.	volts
Cathode Current:		
Peak	77 max.	ma
Average	22 max.	ma
Plate Dissipation	1.5 max.	watts

Maximum Circuit Values:

Grid-Circuit Resistance:		
For grid-resistor-bias operation	2.2 max.	megohms

VERTICAL-DEFLECTION AMPLIFIER

Beam Power Unit

Maximum Ratings, *Design-Maximum Values:*

For operation in a 525-line, 30-frame system[d]

DC Plate Voltage	300 max.	volts
→ Peak Positive-Pulse Plate Voltage[e]	2000 abs.max.	volts
DC Grid-No.2 (Screen-Grid) Voltage	150 max.	volts
Peak Negative-Pulse Grid-No.1 (Control-Grid) Voltage	250 max.	volts
Cathode Current:		
Peak	200 max.	ma
→ Average	70 max.	ma

→ Indicates a change.

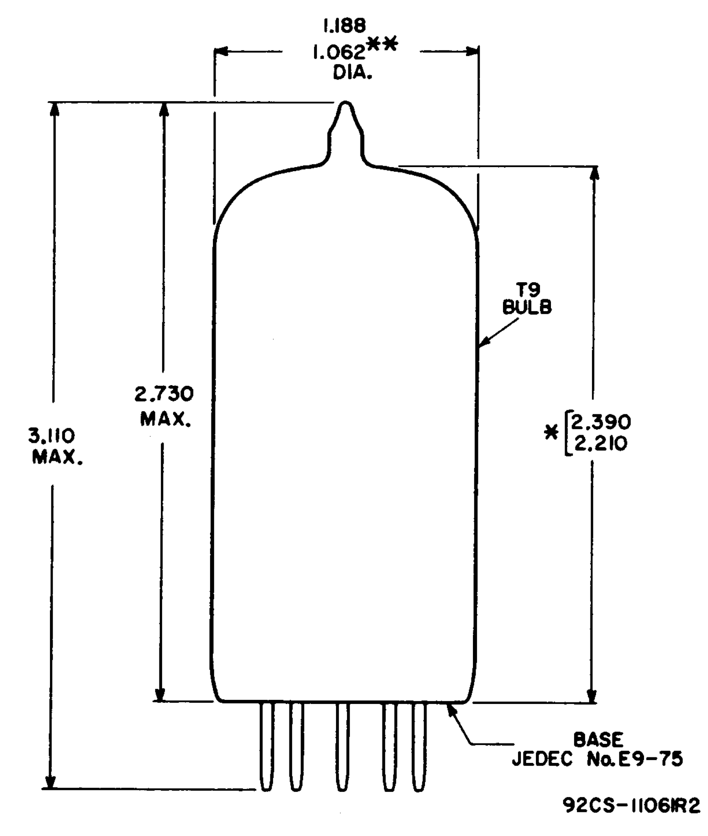


PLATE DISSIPATION	. . . .	12 max.	watts
GRID-No. 2 INPUT	. . . .	1.9 max.	watts

Maximum Circuit Values:

Grid-No. 1-Circuit Resistance:
For grid-resistor-bias operation. . . 2.2 max. megohms

[a] The dc component must not exceed 100 volts.
[b] Without external shield.
[c] These values can be measured by a method involving a recurrent wave form such that the plate dissipation and grid-No. 2 input will be kept within ratings in order to prevent damage to the tube.
[d] As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations", Federal Communications Commission.
[e] This rating is applicable where the duration of the voltage pulse does not exceed 15 per cent of one vertical scanning cycle. In a 525-line, 30-frame system, 15 per cent on one vertical scanning cycle is 2.5 milliseconds.

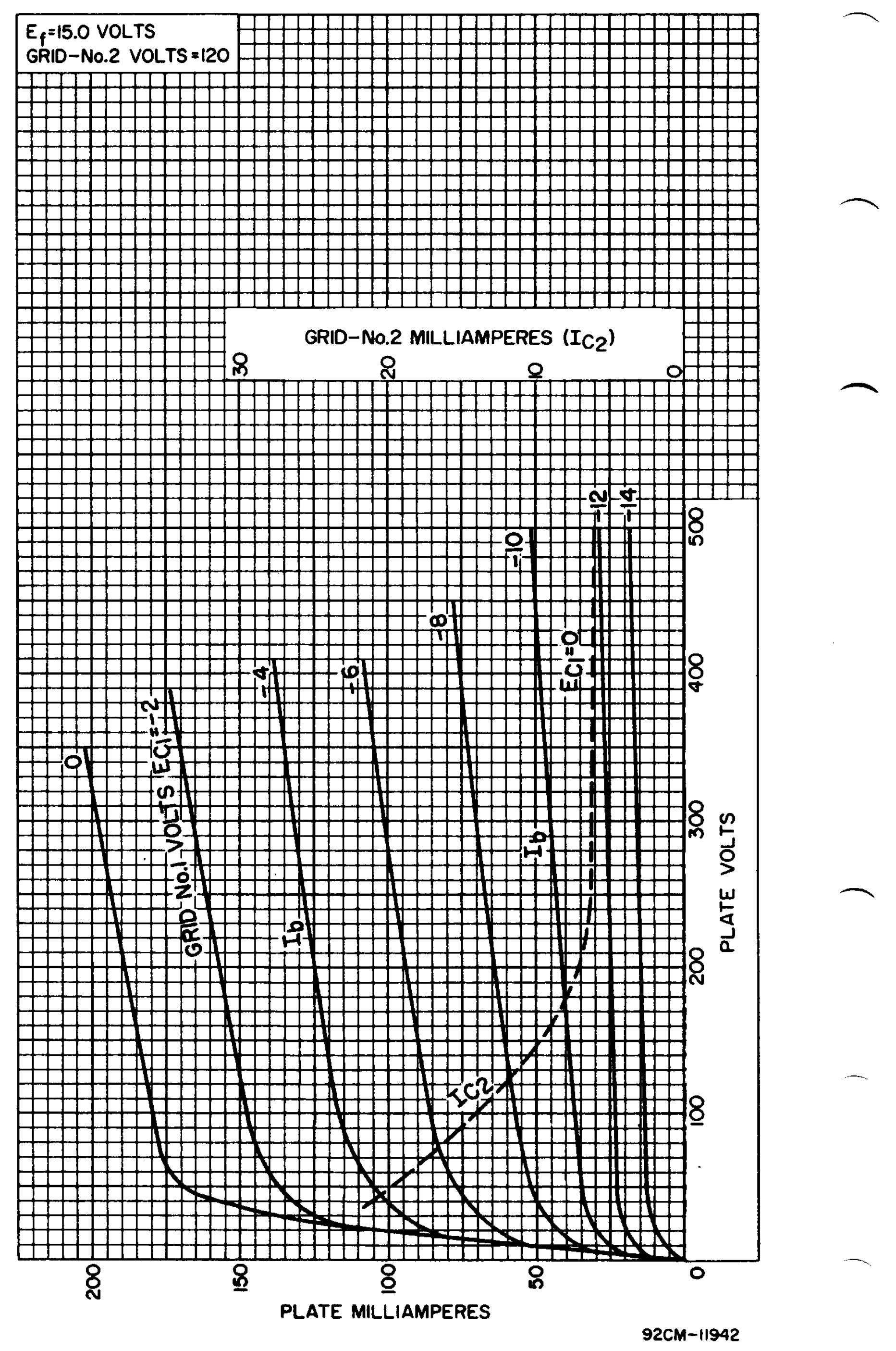


ALL DIMENSIONS IN INCHES

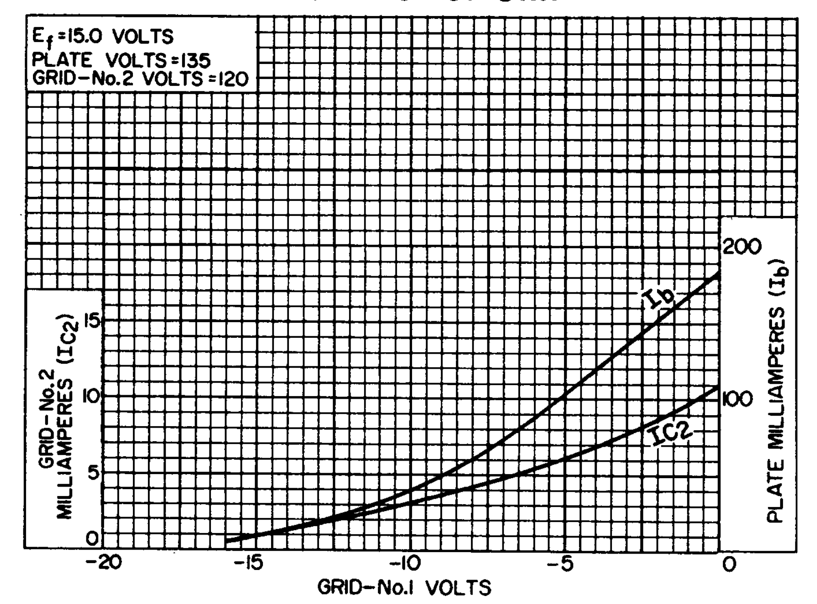
** APPLIES IN ZONE STARTING 0.375" FROM BASE SEAT.
* MEASURED FROM BASE SEAT TO BULB-TOP LINE AS DETERMINED BY A RING GAUGE OF 0.600" INSIDE DIAMETER.

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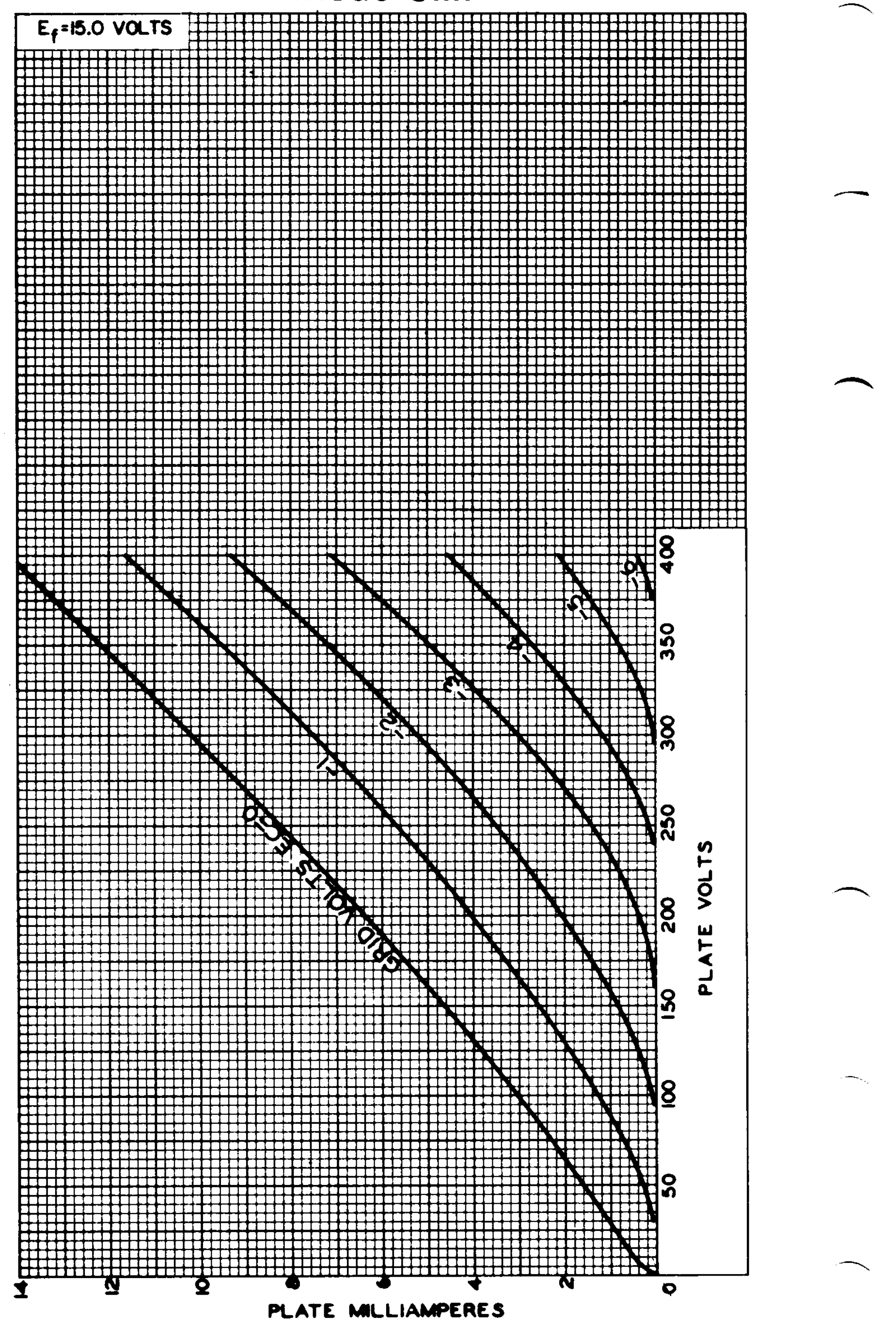
AVERAGE CHARACTERISTICS
Beam Power Unit



AVERAGE CHARACTERISTICS
Beam Power Unit

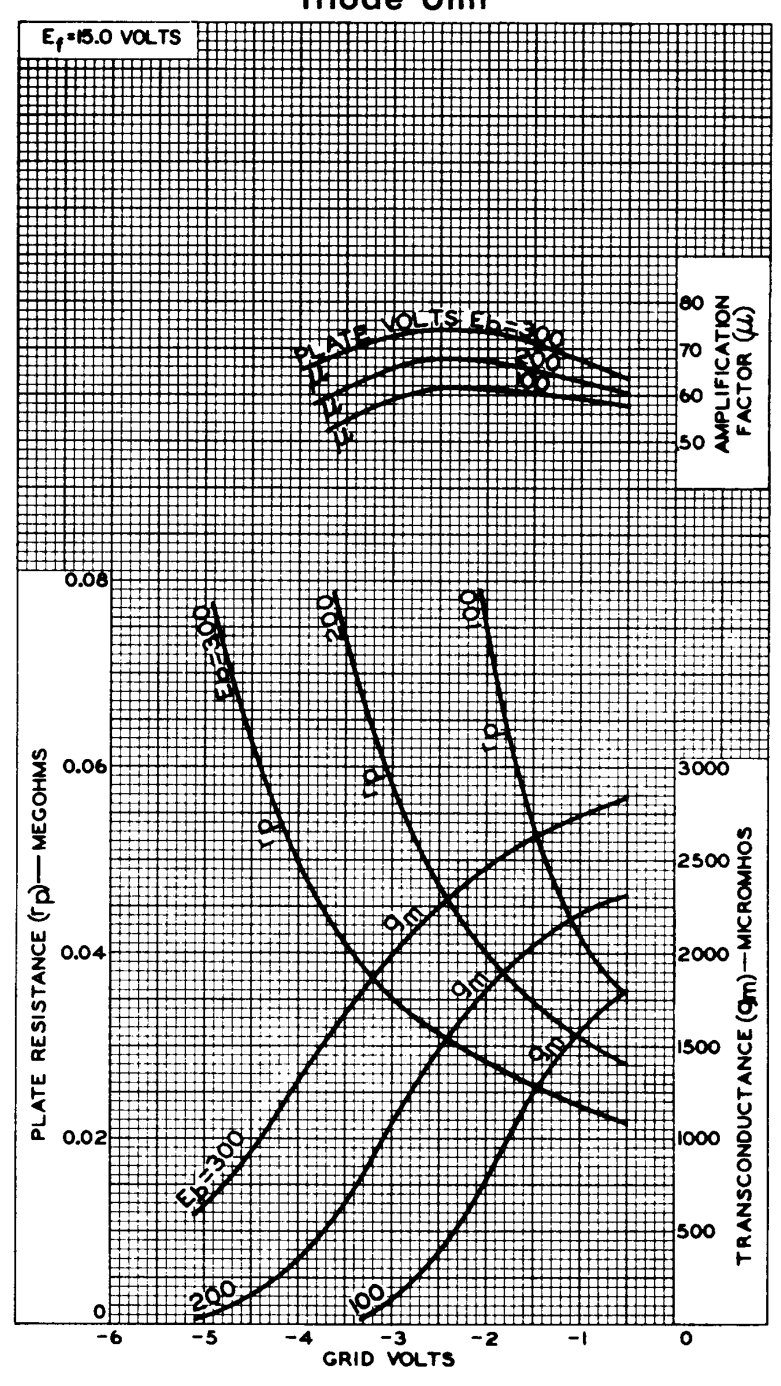


AVERAGE CHARACTERISTICS
Triode Unit



92CM—11944

AVERAGE CHARACTERISTICS
Triode Unit



92CM-11945